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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/673,951 | 10/24/2000 | Eugenie Charriere | 004900-188 | 8720 |

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| EXAMINER | |
|---|---|
| SERGENT, RABON A | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 1711 | |

DATE MAILED: 07/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 09/673,951 | CHARRIERE ET AL. | |
| | Examiner | Art Unit | |
| | Rabon Sergent | 1711 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *May 7, 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *24-58* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *24-58* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

1. Claims 24-58 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Despite applicants' response, the term, "true trimer", has not been defined within the specification, and no evidence has been presented that one of ordinary skill would know that the term represents a product of the trimerization of only three monomers with no further propagation. The examiner has reviewed applicants' cited passages within U.S. 6,492,456 and U.S. 6,653,432, and the position is taken that the argued passages support the examiner's position that the term lacks an art recognized definition. This position is logical in view of the fact that the cited definitions are not consistent with each other; the definition of U.S. 6,653,432 requires the presence of a uretdione ring and the definition of U.S. 6,492,456 sets forth provisos not encompassed by U.S. 6,653,432.

2. Claims 24-58 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Firstly, the examiner has considered applicants' remarks concerning the definition of a "derived isocyanate function"; however, the position is maintained that the definition is repugnant to the art recognized definition. One of ordinary skill would not envisage the recited groups as falling within the definition of an isocyanate. Furthermore, applicants' language and its interpretation calls into question exactly what is encompassed by any of applicants' terms which include the term, isocyanate or polyisocyanate. By the set forth reasoning, it is unclear if any of applicants' tricondensate polyfunctional isocyanate compositions are required to contain

any isocyanate groups? If applicants intend the language to mean other than isocyanate groups, then it is unclear why this language has not been used. The language introduces an unnecessary degree of ambiguity. Applicants' response of January 16, 2004 has not addressed the examiner's aforementioned concerns.

Secondly, despite applicants' response, the position is maintained that without specifying a weight or quantity relationship between the two steps of claim 40 or amounts of products within each of the two steps of claim 40, the claimed weight percent of claim 45 is essentially meaningless. There is no requirement that all of the product from step a) be used. Applicants' response in no way clarifies the relationship between the product of step b) and the product of step a) or explains how the 25 weight percent language contributes any meaningful limitation to the claim.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various

claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 46-50, 53, and 54 are rejected under 35 U.S.C. 102(b) as being anticipated by EP 649866.

The reference discloses polyisocyanates containing isocyanurate groups and allophanate groups, wherein the allophanate group content reads on the contents claimed by applicants. See abstract.

5. Applicants' arguments and declaration (Appendix II) have been considered; however, they are insufficient to overcome the prior art rejection. Firstly, applicants have failed to clearly address the entire range of the disclosed quantity of allophanate groups, especially the low endpoint for the disclosed quantity of allophanate groups. Secondly, applicants have failed to provide a clear correlation between the quantities of allophanate groups disclosed and the quantities of allophanate groups calculated by applicants.

6. Claims 24-45, 51, and 52 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Potter et al. ('018) or Jacobs et al. ('482) or EP 649866.

The references disclose the incorporation of allophanate groups into a trimerized polyisocyanate composition, so as to reduce the viscosity of the composition. See abstracts and columns 1 and 2 within Potter et al. and Jacobs et al.

7. Though the references are silent regarding the simple admixture of the allophanate component to the isocyanurate component, the position is taken that it is by no means certain that the claims as drafted exclude the process of adding the allophanate by forming it *in situ*. The claims simply require that the allophanate and trimerization products be combined. However, even if it is determined that the claims require the admixture of previously formed components, the position is taken that one would have expected that a decrease in viscosity would result from the simple admixture of the components, since it has long been known that the viscosity of a component can be reduced by adding a quantity of less viscous material.

8. The examiner has considered applicants' response; however, the arguments and declaration fail to address the disclosed entire ratio ranges of isocyanurate to allophanate groups of the references. Since the examples of the declaration are not commensurate in scope with the teachings of the references and since no clear discussion of the disclosed ratio ranges of the references has been set forth, the position is taken that the arguments are insufficient to remove the prior art rejections. Furthermore, despite applicants' arguments, the position is maintained that the instant process claims do not necessarily exclude the process of adding the allophanate by forming it *in situ*. Lastly, applicants' argument concerning column 3, lines 53-57 of Potter et al. ('018), as set forth within page 20 of the response of January 16, 2004, is incorrect. This passage merely discloses that blends of isocyanates may be used; it in no way teaches what applicants suggest.

9. Claims 24-26, 28-41, and 43-58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Woynar et al. ('359).

Patentees disclose polyisocyanate compositions comprising biurets, wherein it is particularly preferred to produce the biuret from hexamethylene diisocyanate. See abstract and column 2, lines 41 and 42. Patentees further teach at column 4, lines 64+ that allophanate groups may be incorporated within the composition, so as to modify the flexibility, bonding, hydrolysis resistance, hardness, and/or solvent resistance of the biuret polyisocyanates and the products produced from them. Therefore, the position is taken that it would have been obvious to incorporate a quantity of allophanate groups into a hexamethylene diisocyanate biuret composition, so as to obtain a biuret containing composition having the aforementioned improvements.

10. Applicants' arguments of January 16, 2004 and May 7, 2004 have been considered; however, the arguments do not appear to be relevant to the claimed subject matter. As defined within the claims, applicants' tricondensates may merely be biurets; there is no requirement that isocyanurate linkages be present and there is no requirement that cyclocondensation products be present; the use of parentheses around "cyclo" clearly makes the cyclo prefix optional. Furthermore, despite applicants' remarks, the tricondensates are not defined as the reaction product of at least one tricondensate polyfunctional isocyanate and at least one allophanate. It is unclear how applicants rationalize this statement with the claim limitations drawn to reducing the content of tricondensate allophanates.

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication should be directed to R. Sergent at telephone number (571) 272-1079.

RABON SERGENT
PRIMARY EXAMINER

R. Sergent
July 25, 2004